

DETAILED ACTION

1. Claims 1-22 are pending.

Claim Objections

2. Claims 2-9 and 11-18 are objected to for their use of indefinite articles in dependent claims. For example, claim 2 recites, "An OSPF packet as described in claim 1..." It needs to recite, "The OSPF packet as described in claim 1..."

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-18 are rejected under 35 U.S.C.101 because the claimed invention is directed to non-statutory subject matter.

5. Claims 1-9 are directed to, "An Open Shortest Path Found (OSPF) packet..." A packet is simply a data structure, and data structures do not fall into any of the statutory classes set forth in U.S.C. 101 (a process, a machine, an article of manufacture, or a composition of matter). Furthermore, data structures qualify as nonfunctional descriptive material and even claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, will not make it statutory since

no requisite functionality is present to satisfy the practical application requirement. See MPEP 2106.01 for additional information.

6. Claims 10-18 are directed to, "A protocol for distributing vendor specific information..." A protocol is simply a data structure, and data structures does not fall into any of the statutory classes set forth in U.S.C. 101 (a process, a machine, an article of manufacture, or a composition of matter). Furthermore, data structures qualify as nonfunctional descriptive material and even claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, will not make it statutory since no requisite functionality is present to satisfy the practical application requirement. See MPEP 2106.01 for additional information.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 19-20 and 21 are rejected under 35 U.S.C. 112, first paragraph for reciting a single means (claim 21) or step (claim 19). Under 35 U.S.C. 112, first paragraph, the enabling disclosure of the specification must be commensurate in scope with the claim under consideration. The claim recites a single means or

step and hence it covers every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor. See MPEP § 2164.08(a). In re Hyatt, 218 USPQ 195 (CAFC 1983). In actuality claim 19, a method claim, does not even recite a single step, which is further addressed below under the 112 second paragraph heading. Nonetheless, the conclusion remains the same; as written claim 19 covers conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor.

9. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The following terms lack antecedent a basis:

- (a) "the Opaque Type" (claim 1: line 4; claim 10, line 5)
- (b) "the Type-Specific ID fields" (claim 1:line 5; claim 10, line 6)

11. Claim 19 recites, "A method for distributing wavelength identification information for a WDM optical network using a known routing protocol, where the known routing protocol is extended to provide a packet for transmitting vendor specific information related to wavelength identification, the packet comprising a Vendatt-type field, a Vendatt-length field, an Enterprise Code field, and a Vendatt-data

section, wherein the Vendatt-Data section includes the wavelength identification information to be distributed.” It is unclear what statutory class this claim falls into. While it explicitly recites it is a method, that method fails to have any steps.

12. Claims 2-9, 11-18, and 20 are rejected due to their dependence on the above rejected claims.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Doshi et al (US Pub. No. 2004/0193728), hereafter “Doshi.”

15. As to claim 1, Doshi discloses an Open Shortest Path Found (OSPF) packet of an OSPF protocol used in a network having a plurality of nodes connected by optical links, the OSPF packet comprising an opaque Link State Advertisement (LSA) ([0185]), the LSA including:

an LSA header having a single Vendatt Link State Identification (ID) field instead of the Opaque Type and the Type-Specific ID fields of a standard LSA header ([0228], lines 1-11); and

a set of Vendor Attribute Type/Length/Value (TLV) fields ([0228], lines 1-6), the Value field including an Enterprise Code field and a Vendatt-Data section, and the Type field being a Vendatt-Type field indicating the presence of the Enterprise Code field in the Value field ([0228], lines 15-23, "Resource Flag field" reads on "Enterprise Code field");

the Vendatt Link State ID field of the LSA header indicating the presence of the set of Vendor Attribute TLV fields ([0228], lines 1-6, if the length field is non-zero this is an indication that their are TLV triplets).

16. As to claims 10, 19, and 21, they are rejected by a similar rationale to that set forth in claim 1's rejection.

17. As to claims 2 and 11, Doshi discloses the Vendatt Link State ID field of the LSA header has a numerical value, which is designed not to conflict with the numerical values of the Opaque Type and the Type-Specific ID fields of a standard LSA header ([0228], lines 1-11).

18. As to claims 3-4 and 12-13, Doshi discloses the numerical value of the Vendatt Link State ID field indicates the presence of Vendor specific link related

information in the Vendatt-Data section of the set of Vendor Attribute TLV fields ([0228], lines 1-11).

19. As to claims 5 and 14, Doshi discloses the Vendor specific link related information is a wavelength division multiplexing (WDM) link related information comprising one or more of the following a wavelength identifier of the wavelength of the WDM link ([0077], lines 24-30 and [0045], lines 12-15 indicates the sharing information is distributed utilizing OSPF and therefore the LSA headers described in [0228]).

20. As to claims 6 and 15, Doshi discloses the Vendatt-Data section comprises a sub-TLV field, the sub-TLV field comprising a sub-sub set of Vendor Attribute TLV fields, which contains said Vendor specific link related information ([0228], lines 1-11).

21. As to claims 7 and 16, Doshi discloses the Vendor specific node related information comprises one or more of the following: a Node Name which includes a text string bearing the name of the node ([0228], lines 14-16, "advertising node" would include its name in any LSA).

22. As to claims 8 and 17, Doshi discloses the Vendatt-Data section comprises a sub-TLV field, the sub-TLV field comprising a sub-sub set of Vendor Attribute

TLV fields, which contains said Vendor specific node related information ([0228], lines 1-11)..

23. As to claims 9 and 18, Doshi discloses the sub-TLV field comprises an Advertising Router ID field ([0228], lines 14-16, "advertising node" would include its name in any LSA).

24. As to claims 20 and 22, Doshi discloses the known routing protocol is the OSPF protocol ([0185]), and the packet includes a Link State Advertisement (LSA), comprising a set of Type/Length/Value (TLV) fields including said Vendatt-type, Vendatt-length, Enterprise Code fields, and the Vendatt-data section ([0228], lines 15-23, "Resource Flag field" reads on "Enterprise Code field").

Conclusion

25. For additional prior art made of record and not relied upon but considered pertinent to applicant's disclosure see attached Notice of References Cited, Form PTO-892.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas J Dailey/
Examiner, Art Unit 2152

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2146